

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method for target device discovery on a network, comprising:

multicasting a signal from a master initiator over the network;

5 determining if a previously registered target re-registered with the master initiator by a unicast to the master initiator;

removing the previously registered target on a list of active targets connected to the network when the previously registered target has not re-registered within a selected re-registration interval; and

10 sending out a next multicast, wherein the next multicast includes information regarding the previously registered target when the previously registered target is determined to have re-registered since the multicasting of the signal, the information regarding the previously registered target notifying other initiators to maintain the previously registered target on the list of targets.

2. (Previously presented) A method for target device discovery on a network as recited in claim 1, wherein the other initiators maintain the previously registered target on initiator target lists in response to receiving the information regarding the previously registered target.

3. (Previously presented) A method for target device discovery on a network as recited in claim 1, wherein the master initiator is elected by comparing device identification numbers of a plurality of initiators connected to the network.

4. (Previously presented) A method for target device discovery on a network as recited in claim 1, wherein the signal from the master initiator is in a form of a master identification packet.

5. (Previously presented) A method for target device discovery on a network as recited in claim 1, wherein the signal is a first multicast, the next multicast is a second multicast, the method further comprising:

causing a second initiator, in response to receiving a third multicast, the third multicast not including the information regarding the previously registered target, to compare a sequence number of the third multicast with a previous sequence number of a previous multicast, the previous multicast being a most recently received multicast prior to the third multicast.

6. (Previously presented) A method for target device discovery on a network as recited in claim 5, wherein the second initiator determines that a multicast has been missed when the difference between the sequence number of the third multicast and the previous sequence number is greater than one and target information is included in the third multicast, the second initiator also determining that a multicast has been missed when the difference between the sequence number of the third multicast and the previous sequence number is equal to one and the third multicast does not include target information.

7. (Previously presented) A method for target device discovery on a network as recited in claim 6, further comprising causing the second initiator to request target information contained in the second multicast when the second initiator determines that a multicast has been missed.

8. (Original) A method for target device discovery on a network as recited in claim 1, wherein the sending out occurs on a periodic basis.

9. (Original) A method for target device discovery on a network as recited in claim 1, wherein the network is one of an iSCSI network, an eSCSI network, a TCP/IP network, and an Ethernet network.

10. (Original) A method for target device discovery on a network as recited in claim 1, wherein the previous registered target re-registers by unicasting information to the master initiator on a periodic basis.

11. (Previously presented) A method for target device discovery on a network, comprising:

multicasting a signal from a master initiator over the network;

receiving a unicast from a new target recently connected to the network;

5 adding the new target to a list of targets connected to the network; and

sending out a next multicast to other initiators, the next multicast including information regarding the new target.

12. (Original) A method for target device discovery on a network as recited in claim 11, wherein the network is one of an iSCSI network, an eSCSI network, a TCP/IP network, and an Ethernet network.

13. (Previously presented) A method for peripheral device discovery on a network as recited in claim 11, wherein the other initiators add the new target to initiator target lists in response to receiving the information regarding the new target.

14. (Previously presented) A method for target device discovery on a network as recited in claim 11, wherein the master initiator is determined by comparing device identification numbers of a plurality of initiators connected to the network.

15. (Previously presented) A method for target device discovery on a network as recited in claim 14, wherein the device identification number is a global unique identification (GUID) number.

16. (Original) A method for target device discovery on a network as recited in claim 11, wherein the signal from the master initiator is in a form of master identification packets.

17. (Previously presented) A method for target device discovery on a network as recited in claim 11, the method further comprising:

causing a second initiator, in response to receiving a third multicast from the master initiator, the third multicast not including the information regarding the new target, to
5 compare a sequence number of the third multicast with a previous sequence number of a previous multicast, the previous multicast being a most recently received multicast prior to the third multicast.

18. (Previously presented) A method for target device discovery on a network as recited in claim 17, wherein the second initiator determines that a multicast has been missed when the difference between the sequence number of the third multicast and the previous sequence number is greater than one and target information is included in the third multicast,
5 the second initiator also determining that a multicast has been missed when the difference between the sequence number of the third multicast and the previous sequence number is equal to one and the third multicast does not include target information.

19. (Previously presented) A method for target device discovery on a network as recited in claim 18, further comprising causing the second initiator to request target information contained in the next multicast when the second initiator determines that a multicast has been missed.

20. (Previously presented) A method for target device discovery on a network as recited in claim 11, further comprising sending additional multicasts on a periodic basis, the additional multicasts not including the information regarding the new target.

21. (Previously presented) A method for target device discovery on a network the method being implemented by a master initiator, the master initiator including logic for implementing the method, the method comprising:

transmitting a plurality of multicasts over the network, the the multicasts being
5 transmitted continually at a predetermined interval;

in response to receiving a unicast from a new target recently connected to the network, adding the new target to a list of targets;

in response to determining that a previously registered target re-registered with the master initiator, maintaining the previously registered target on the list of targets;

10 wherein one of the multicasts includes information regarding the maintaining and the adding of targets to the network.

22. (Original) A method for target device discovery on a network as recited in claim 21, wherein the previous registered target re-registers by unicasting information to the master initiator on a periodic basis.

23. (Previously presented) A system for target device discovery on a network comprising:

a master initiator, the master initiator configured to periodically send a multicast throughout the network;

5 at least one target, the at least one target configured to remain passive until one of the multicasts is received from the master initiator; and

at least one slave initiator, the at least one slave initiator configured to receive target information from the multicasts;

wherein the master initiator polls the at least one target by way of the multicasts, and
10 the at least one target responds to the one multicast through use of a unicast directed to the master initiator.

24. (Original) A system for target device discovery on a network as recited in claim 23, wherein the at least one slave initiator is configured to unicast to the master initiator a request to resend information if a multicast with updated target information was not received by the at least one slave initiator.

25. (Original) A system for target device discovery on a network as recited in claim 24, wherein the at least one slave initiator is configured to determine if the multicast with updated target information was not received by examining a sequence number of each multicast to determine if a previous multicast was missed.

26. (Original) A system for target device discovery on a network as recited in claim 25, wherein the previous multicast was missed when a last sequence number from a last multicast has incremented and no updated target information has been received.

27. (Original) A system for target device discovery on a network as recited in claim 23, wherein the network is one of an iSCSI network, an eSCSI network, a TCP/IP network, and an Ethernet network.